REMARKS

The Office Action mailed October 3, 2008 has been reviewed and carefully considered. No new matter has been added.

Claims 1, 10, 13, 20, 34, and 35 have been amended. Claims 1-37 are pending.

The specification stands objected to. In particular, the Examiner has stated that the language "computer program product" of Claims 36-37 lacks antecedent basis in the specification. Accordingly, the specification, in particular at page 13 as described above, has been amended to now disclose, *inter alia*, the following paragraph:

> **An embodiment of the present principles may involve, for example, a computer program product for a set-top-box that comprises a set of instructions, which, when loaded into the set-top-box, causes the set-top-box to carry out the method, for processing a stream of fixed length packets, described herein above. Moreover, another embodiment of the present principles may involve, for example, a computer program product for a television set that comprises a set of instructions, which, when loaded into the television set, causes the television set to carry out the method, for processing a stream of fixed length packets, as described herein above.**

As set forth in MPEP 2163.06: "[I]nformation contained in any one of the specification, claims or drawings of the application as filed may be added to any other part of the application without introducing new matter". Hence, support for the above added paragraph to the specification may be found at least at Claims 36-37 as originally filed. As the specification is believed to now provide proper antecedent basis for "the computer program product" recited in Claims 36-37, reconsideration of the rejection is respectfully requested.

Claim 10 stands rejected under 35 U.S.C. 112, second paragraph. Claim 10 has been amended to now depend from Claim 9, in accordance with the Examiner's suggestion. Withdrawal of the objection is respectfully requested.

Claims 1-4 stand rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,810,084 to Jun et al. (hereinafter "Jun"). Claim 5 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Jun in view of U.S. Patent No. 5,796,868 to Dutta-Choudhury (hereinafter "Dutta-Choudhury"). Claim 6 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Jun in view of U.S. Patent No. 5,414,833 to Hershey et al. (hereinafter "Hershey"). Claims 7-9 and 11-12 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Jun in view of U.S. Patent No. 6,788,654 to Hashimoto et al. (hereinafter "Hashimoto"). Claim 10 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Jun in view of Hashimoto and U.S. Patent Publication No. 2003/0033025A1 to Lee et al. (hereinafter "Lee"). Claims 13-37 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Jun in view of U.S. Patent Publication No. 2003/0115345 to Chien et al. (hereinafter "Chien"). Claims 20-37 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Jun in view of Chien and Hashimoto.

It is to be noted that Claims 1, 13, 20, 34, and 35 are the pending independent claims in the case.

It is respectfully asserted none of the cited references, either taken singly or in combination, teach or suggest the following limitations recited in Claim 1:

> a Null-Packet Detector for processing a stream of fixed-length packets received by said apparatus as digitally encoded signals and having multiple packet types, each packet including a header portion and a data portion, the header portion including a sync byte,
> wherein said Null-Packet Detector processes the stream by detecting whether a received packet is a null-packet and for identifying the location of the sync-byte of a detected null-packet.

Moreover, it is respectfully asserted that none of the cited references, either taken singly or in combination, teach or suggest the following limitations recited in Claim 13:

a Syndrome Detector for processing a stream of fixed-length packets received by said apparatus as digitally encoded signals and having multiple packet types, each packet including a header portion and a data portion, the header portion including a checksum-encoded sync byte, the stream processed by detecting the checksum-encoded sync-byte and ~~for~~ generating a Sync_flag signal to indicate the location of the checksum-encoded sync-byte;

a Null-Packet Detector adapted to detect whether a received packet is a null-packet, and adapted to identify the location of the sync-byte of a detected null-packet; and

an MPEG Sync-Byte Re-insertion circuit for inserting a predetermined value into the sync-byte location indicated by an MPEG synchronization signal.

Further, it is respectfully asserted that none of the cited references, either taken singly or in combination, teach or suggest the following limitations recited in Claim 20:

processing a stream of fixed length packets received by said method as digitally encoded signals, each packet including a checksum-encoded sync-byte, the stream including a plurality of packets that each contain a first fixed bit pattern in the header portion of each packet,

wherein said processing step comprises:

performing a first detection step of decoding the checksum in the stream to detect a checksum-encoded sync byte position candidate in the current one of the fixed length packets;

performing a second detection step to detect the first fixed bit pattern in the header portion of the current one of the fixed length packets;

if the first fixed bit pattern is detected in the stream of fixed length packets, then identifying the sync-byte position of the sync-byte of each of the fixed length packets based upon the detection of the first fixed bit pattern; and

inserting a predetermined sync-byte value into the identified sync-byte position.

Also, it is respectfully asserted that none of the cited references, either taken singly or in combination, teach or suggest the following limitations recited in Claim 34:

processing a stream of fixed length packets received by said method as digitally encoded signals, each packet including a checksum-encoded sync-byte, the stream including a plurality of packets that each contain a first data pattern in a PID portion,

wherein said processing step comprises:

decoding the checksum in a preceding one of the fixed length packets to detect a checksum-encoded sync byte candidate in a current one of the fixed length packets; and

if a checksum-encoded sync byte candidate is detected in the decoding step, then searching for the first data pattern in the PID portion of the current one of the fixed length packets.

Additionally, it is respectfully asserted that none of the cited references, either taken singly or in combination, teach or suggest the following limitation recited in Claim 35:

means for processing a stream of fixed length packets received by said apparatus as digitally encoded signals, each packet including a checksum-encoded sync-byte, the stream including a plurality of packets that each contain a first data pattern in a PID portion,

wherein said means for processing comprises:

means for decoding the checksum in a preceding one of the fixed length packets to detect a checksum-encoded sync byte candidate in a current one of the fixed length packets; and

means for searching for the first data pattern in the PID portion of the current one of the fixed length packets when a checksum-encoded sync byte candidate is detected in the decoding step.

The Examiner has cited Figure 5 as well as lines 10-11 of the Abstract of Jun against the above recited limitations of Claims 1, 13, 20, 34, and 35, while further citing paragraph [0054] of Chien against the above recited limitations of Claim 13, and further citing paragraph [0076] of Chien against the above recited limitations of Claims 20, 34, and 35.

Initially, it is pointed out that each of Claims 1, 13, 20, 34, and 35 recite, *inter alia*, processing a stream of fixed-length packets **received by said apparatus/method** as digitally encoded signals. Hence, each of Claims 1, 13, 20, 34, and 35 may be inherently considered to correspond to a receiver, in order to receive the stream of fixed-lengths packets for processing in the first place. Support for the above amendments to claims 1, 13, 20, 34, and 35 may be found at the title (method and apparatus for processing null packets in a digital media receiver) of the Applicants' application as well as figure 2 thereof which is directed to "an MPEG framing block at the receiver end".

In contrast, Figure 5 of Jun is explicitly directed to a transmitter (see, e.g., Jun, col. 4, lines 39-41, and col. 5, lines 1-3). Accordingly, the first element in the transmitter of Figure 5 of Jun includes an encoder. Hence, Figure 5 of Jun does not teach or suggest processing a stream of fixed-length packets received as digitally encoded signals as recited in each of Claims 1, 13, 20, 34, and 35, since the transmitter of Figure 5 of Jun is itself performing the encoding prior to transmission and hence, is not receiving a stream of fixed-length packets as digitally encoded signals as recited in these claims.

Given that Figure 5 of Jun is directed to a transmitter, of course the fact of whether a packet is a null packet and the location of the sync-byte of a detected null-packet is easily and readily known by the transmitter of FIG. 5 of Jun since it is the transmitter side itself that is determining at the onset whether a packet is to be a null packet and where a sync-byte of a null packet is to be located. However, clearly, such determinations are not so readily made at the

receiver side, and the solving of this problem at the receiver side is what the subject matters of Claims 1, 13, 20, 34, and 35 are directed to.

Moreover, given that it is the transmitter side itself that makes the determinations of whether a packet is a null packet and the location of the sync-byte of a detected null-packet, it cannot be reasonably asserted at all that any determinations relating to the same on the transmitter side correspond to such determinations of the receiver side. That is, the transmitter side readily knows this information having determined it in the first place, while it is up to the receiver side to "**figure out**" what the transmitter side has done as far as setting a particular packet to a null packet and setting a location of a sync byte in the header portion of that null packet. For example, column 6, lines 19-21 provide an equation for assigning positions of training sync signals within null packets, hence showing that such information is initially determined by, and thus clearly known to, the encoder and the elements comprised therein (such as, for example, the null packet detector).

Hence, Jun does not teach or suggest the above recited limitations of Claims 1, 13, 20, 34, and 35. Moreover, none of the cited references cure the deficiencies of Jun, and are silent with respect to the above recited limitations of Claims 1, 13, 20, 34, and 35.

Moreover, given that Jun is directed to a transmitter, while the subject matters of Claims 1, 13, 20, 34, and 35 are essentially directed to receivers, it is respectfully asserted that any combination involving modifying the transmitter of Jun to arrive at the presently claimed subject matters of Claims 1, 13, 20, 34, and 35 (which are essentially directed to receivers, as argued above) would render Jun unsatisfactory for its intended purpose (i.e., transmitting).

However, as set forth in MPEP 2143.01:

> If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).

Hence, given the preceding, no suggestion or motivation exists to combine Jun with any of the other references. Accordingly, Jun is not a proper reference against the pending claims and should be withdrawn.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." MPEP §2131, citing *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

"To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art" (MPEP §2143.03, citing *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)). "If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious" (MPEP §2143.03, citing *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)).

Accordingly, Claims 1, 13, 20, 34, and 35 are patentably distinct and non-obvious over the cited references for at least the reasons set forth above.

Claims 2-12 directly or indirectly depend from Claim 1 and, thus, includes all the elements of Claim 1. Claims 14-19 directly or indirectly depend from Claim 13 and, thus, includes all the elements of Claim 13. Claims 21-33 and 36-37 directly or indirectly depend from Claim 20 and, thus, includes all the elements of Claim 20. Accordingly, Claims 2-12 are patentably distinct and non-obvious over the cited references for at least the reasons set forth above with respect to independent Claim 1, Claims 14-19 are patentably distinct and non-obvious over the cited references for at least the reasons set forth above with respect to independent Claim 13, and Claims 21-33 and 36-37 are patentably distinct and non-obvious over the cited references for at least the reasons set forth above with respect to independent Claim 20..

Accordingly, reconsideration of the rejections is respectfully requested.

In view of the foregoing, Applicants respectfully request that the rejection of the claims set forth in the Office Action of October 3, 2008 be withdrawn, that pending Claims 1-37 be allowed, and that the case proceed to early issuance of Letters Patent in due course.

It is believed that no further additional fees or charges are currently due. However, in the event that any additional fees or charges are required at this time in connection with the application, they may be charged to applicants' Deposit Account No.07-0832.

Respectfully submitted,

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